**Biochemical Oxygen Demand (BOD) and Carbonaceous Biochemical Oxygen Demand (CBOD)**
**SM 18th/19th 5210B** **Page 1 of 2**

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

| Relevant Aspect of Standards | Method Reference | Y | N | N/A | Comments |
|---|---|---|---|---|---|
| *Records Examined:* SOP Number/ Revision/ Date _____ Analyst:_____<br>Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____ | | | | | |
| Are samples analyzed within two hours of collection or preserved at or below 4ºC until time of analysis? | 5210B.1.b | | | | |
| Are samples checked for residual chlorine, and if chlorine is present, are they dechlorinated using the appropriate amount of sodium sulfite (determined by titration as specified in method)? | 5210B.4.e.2 | | | | |
| Are samples supersaturated with DO at 20ºC aerated or agitated to bring the DO between 7.0 and 9.0 mg/L? | 5210B.4.e.4 | | | | |
| Are appropriate concentrations of phosphate buffer, MgSO4, CaCl2, and FeCl3 added to dilution water? (Buffer may be purchased in pre-made buffer pillows, or individual reagents made in the laboratory may be added to dilution water as specified in the method.) | 5210B.4.a | | | | |
| Are samples brought to 20 ± 1ºC before making dilutions? | 5210B.4.e.5 | | | | |
| For samples containing caustic alkalinity or acidity, is pH of samples verified to be between 6.5 and 7.5 and adjusted accordingly using sulfuric acid solution and/or sodium hydroxide solution as specified in the method? | 5210B.4.e.1 | | | | |
| Are several dilutions analyzed for each sample, to produce a residual DO of at least 1.0 mg/L and a DO uptake of at least 2.0 mg/L after 5-day incubation? | 5210B.4.f | | | | |
| Is dilution water saturated with DO by shaking in a partially filled bottle or by aerating? | 5210B.4.a | | | | |
| Is seed added to all samples before final dilution? | 5210B.4.f | | | | |
| Is the appropriate amount of nitrification inhibitor added to CBOD samples prior to filling? | 5210B.4.e.6 | | | | |
| Notes/ Comments: | | | | | |

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|---|---|---|---|---|---|
| Are bottles tightly stoppered after replacing any displaced contents with dilution water, and are they water-sealed? | 5210B.4.f | | | | |
| Are bottles incubated for 5 days in the dark at 20 ± 1ºC? | 5210B.4.i | | | | |
| Is a glucose-glutamic acid check analyzed with each batch of samples, with an acceptable average range of 198 ± 30.5 mg/L? | 5210B.4.c and 5210B.6.a | | | | |
| Are one or more dilution water blanks analyzed with each batch of samples, with a maximum acceptable value of 0.20 mg/L? | 5210B.4.b and 5210B.4.h | | | | |
| Is a duplicate analyzed with 5 percent or more of samples? | 1020B.6 | | | | |
| Are BOD seed controls analyzed using at least several dilutions of seed, with an average seed correction between 0.6 and 1.0 mg/L after 5 days of incubation? | 5210B.4.d.2 | | | | |
| Are results calculated using only qualifying data which have a minimum DO depletion of 2.0 mg/L and a residual DO of a least 1.0 mg/L after 5 days of incubation? | 5210B.6.a 19th-5210B.5 | | | | |
| Are results calculated and reported according to the method? | 5210B.7 | | | | |
| Does the laboratory follow the method-established detection limit of 2 mg/L? | 5210B.6.b | | | | |

Notes/ Comments: